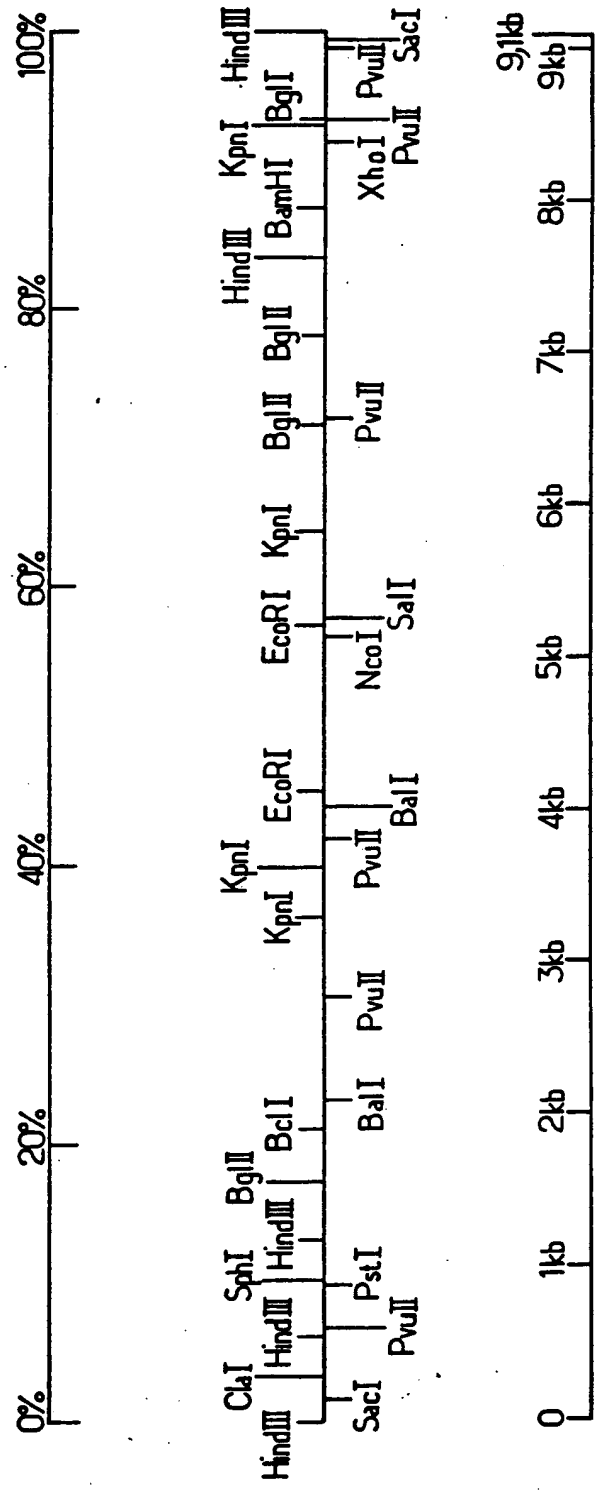


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FIG.1.



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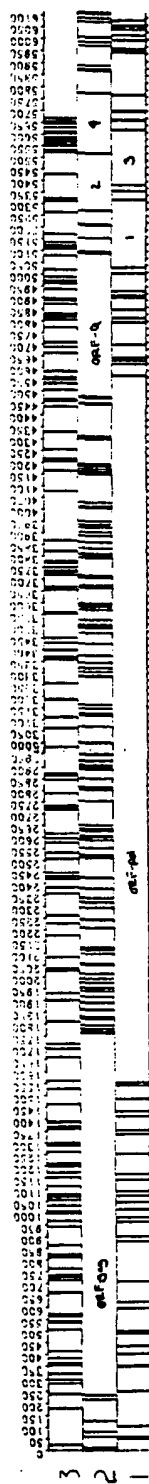


Fig. 2

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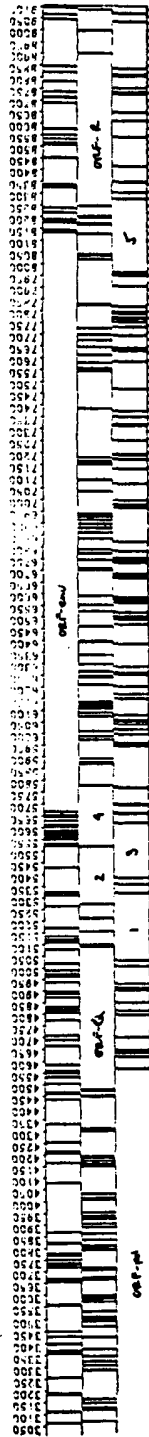


Fig. 3

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 G C G C C T T G T G T G G G G G A A T T G A A T T G A T T C C T A C A T C C C A G G G T A G A A T C A T A A G A A T T A A G A A A A T T A G C C C A G G A A G A T
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 C A G G T C A C A C T T A A G C A C G A C A A A T C C A G C A T T T A A G A A A G G G C G A T T G G G C G T A C T C G G G A A A G A T A G A C A T A G C A C A G A C
 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320

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 Y K L N Y K N K L O K S C F I T C G L C O A E R I N F G K O Q O S S S G V K V G E G
 T N R I T K T N Y K N S K F S C L C O A O R S T L E R T S A P L E R P O R G
 ATACAACTAACTAACAAACAAATTCACAAATTCGGTTCATTCAGCGACACACAGATCCACTTCGGAAGCAGCAGCAAGCTCTCTCGGAAGCTGAGG
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 J S O Y K I V I S C U C L K K K U K I I P D Y G K O R M A G V D I C V A S R Q D E
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 C A T T A G C A A C G A A A G T T T A C T A A C A C C A T A T G T T C A G G A A G C T G T T T A G A C A T C T A C T A G A G C C T C C C A G A T A G T C G A A G T A C A C A T
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 A U G A C A T A A G C A G C A C T C T A T A T T G C A C G A C T T A A F A A C C A A A G A T A A C C A C C T T G C T A C T T A C C A A C T C A G A C C A T A C A T G C A A C C C
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 C C I F V S E O S A G I F S I V S P H P E R C D T G P A F O K K K V E
 A V L S I V H V R U G I F S P L S O T H L P E R C D T G P A F O K K K V E
 T T G C T A T T A T A A T A G C C A G C A T T A C C A T T C T T L A G A C C C C C A G C C G A A G A A G A G G T G A G
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Fig 13

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N K G E U E M P V D P R L E P W K H P S S O P K
T F E S Y K K W S D * I L D * S P G S I Q E V S L
CAACAGAGGAGAGCAAAATGGAGCCAGTAGATCCTAGACTAGAGCCCTGGAAGCATCCAGGAAGTCAGCCTAA
5290 5300 5310 5320 5330 5340 5350

P S L F H N K S L R H L L W Q E E A E T A T K T S
O V C F T T K A L G I S Y G R K K R R O R R R P P
K F V S O Q K P * A S P M A G R S G D S D E D L
CCAAGTTTGTTCACAACAAAAGCCTTAGGCATCTCCTATGGCAGGAAGAAGCGGAGACAGCGACGAAGACCTCC
5410 5420 5430 5440 5450 5460 5470

S T C N A T Y T N S N S S I S S S N N N S N S C V
V H V M O P I U I A I A A L V V A I I I A I V V W
Y M * C N L Y K * Q * Q H * * * Q * * Q * L C
AGTACATGTAATGCAACCTATACAAATAGCAATAGCAGCATTAGTAGCAATAATAATAGCAATAGTTGTGTG
5530 5540 5550 5560 5570 5580 5590

I D V N * * T N R K S R R O W Q * E * R R N I S
I D K L I D R L I E R A E D S G N E S E G E I S A
* T G * L I D * * K E Q K T V A M R V K E K Y U
AATAGACAGGTTAATTGATAGACTAATAGAAAGAGCAGAAGACAGTGGCAATGAGAGTGAAGGAGAAATATCAGC
5650 5660 5670 5680 5690 5700 5710

Y * * S V V L Q K N C G S Q S I M G Y L C G F K Q
I D D L * C Y R K I V G H S L L W G T C V E G S N
L M I C S A T E K L W V T V Y Y G V P V W K E A
TATTGATGATCTGTAGTCTACAGAAAATTGGGGTCACAGTCTATTATGGGGTACCTGTGTGGAAGGAAGCAA
5770 5780 5790 5800 5810 5820 5830

R Y I M F G P H M P V Y P G T P T H K K * Y W * W
G T * C L G H T C L C T H R P Q P T R S S I G K C
V H N V W A T H A C V P T D P N P Q E V V L V N
AGGTACATAATGTTTGGCCACACATGCCTGTGTACCCACAGACCCCAACCCACAAGAAGTAGTATTGGTAAATG
5890 5900 5910 5920 5930 5940 5950

C M R I * S V Y G I K A * S H V * N * P H S V L V
A * G Y N U F M G S K P K A M C K I N P T L C * F
H E D I I S L W D Q S L K P C V K L T P L C V S I
TGCATGAGGATAAATCAGTTTATGGGATCAAAGCCATAAGCCATGTGTAAAATTAACCCCACTCTGTGTAGTTT
6010 6020 6030 6040 6050 6060 6070

I P I V V A G K * * W R K E R * K T A L S I S A Q
Y Q * * * K G N D D G E R R D K K I L L F O Y Q H K
T N S S S G E M M M E K G E I K N C S F N T S T
ATACCAATAGTAGTAGCGGGGAAATGATGATGGAGAAAGGAGAGATAAAAACTGCTCTTTCAATATCAGCACAAC
6130 6140 6150 6160 6170 6180 6190

L I * Y Q * I M I L P A I R * V V T P Q S L H R
* Y N T N R * * Y Y Q L Y V D K L * H L S H Y T G
U I I P I D N D T T S Y T L T S C N T S V T T Q A
ITGATATAATACCAATAGATAATGATACTACCAGCTATACGTTACACAAGTTGTAACACCTCAGTCATTACAGAGG
6250 6260 6270 6280 6290 6300 6310

P R L V L W F * N V I I R S M E O D H V Q M S A

Fig 14

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G S O P K T A C T T C Y C K K C C F H C
Q E V S L K L L V P L A I V K S V A F I A
AGGAAGTCAGCCTAAACTGCTTGTACCACTTGCTATTGTAAAAAGTGTGCTTTTCATTG
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A T K T S S R Q S D S S S F S I K A V S
R R R P P Q G S G T H Q V S L S K O * V
S D E D L L K A V R L I K F L Y Q S S K *
AGCGACGAAGACCTCCTCAAGGCAGTCAGACTCATCAAGTTTCTCTATCAAAGCAGTAAGT
5470 5480 5490 5500 5510 5520

S N S C V V H S N H R I * E N I K T K K
I A I V V W S I V I I E Y R K I L R O R K
* O * L C G P * * S * N I G K Y * D K E K
TAGCAATAGTTGTGTGGTCCATAGTAATCATAGAATATAGGAAAATATTAAGACAAAGAAA
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R R N I S T C G D G G G N G A P C S L G
G E I S A L V E M G V E M G H H A P W D
K E K Y Q H L W R W G G W K W G T M L L G I
AGGAGAAATATCAGCACTTGTGGAGATGGGGGTGGAAATGGGGCACCATGCTCCTTGGGA
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C G F K Q P P L Y F V H O M L K H M I Q
V E G S N H H S I L C I R C * S I * Y R
V W K E A T T T L F C A S D A K A Y D T E
TGTGGAAGGAAGCAACCACCACTCTATTTTGTGCATCAGATGCTAAAGCATATGATACAG
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* Y * * M * O K I L T C G K M T W * N R
S I G K C D R K F * H V E K * H G R T D
V V L V N V T E N F N M W K N D M V E O M
TAGTATTGGTAAATGTGACAGAAAAATTTTAAACATGTGGAAAAATGACATGGTAGAACAGA
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H S V L V * S A L I W G * L L I P I V V
T L C * F K V H * F G E C Y * Y O * * *
P L C V S L K C T D L G N A T N T N S S N
CACTCTGTGTTAGTTTAAAGTGCACCTGATTTGGGCAATGCTACTAATACCAATAGTAGTA
6070 6080 6090 6100 6110 6120

S I S A Q A * E V R C P K N M H F F I N
Q Y Q H K H K R * G A E R I C I F L * T
F N I S T S I R G K V G K E Y A F F Y K L
TCAATATCAGCACAAGCATAAGAGGTAAGGTGCAGAAAGAATATGCATTTTTTTATAAAC
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Q S L H R P V Q R Y P L S Q F P Y I I V
S H Y T G L S K G I L * A N S H T L L C
S V I T Q A C P K V S F E P I P I H Y C A
CAGTCATTACACAGGCTGTCCAAAGGTATCCTTTGAGCCAATTCCCATACATTATTGTG
6310 6320 6330 6340 6350 6360

V Q M S A Q Y N V H * F L G G * Y Q L N

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Fig 15

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P G W F C D S K Y * | * * J V J W N R T M Y K C G
P A G F A L L K C H N K T F N G T G P C T N V S
CCCCGGCTGGTTTTGCGATTCTAAATCTAATAATAAGACGTTCAATGGAACAGGACCATGTACAAATGTCAGC
6370 6380 6390 6400 6410 6420 6430

C C * M A V * Q K K R * * L D L P I S O T M L K P
A V E W O S S R R R G S N * I C Q F H R Q C * N
L L N G S L A E E E V V I R S A N F T D N A K T
TUCTGTTGAATGGCAGTCTAGCAGAAGAAGAGGTAGTAATTAGATCTGCCAATTTACAGACAATGCTAAAACC
6490 6500 6510 6520 6530 6540 6550

P T T I G E K V S V S R G D U G E H L L Q * E K *
U Q J Y K K K Y P Y P E G T R E S I C Y N R K N
N N N T R K S I R I O R G P G R A F V T I G K I
CCAACAACAATACAAGAAAAAGTATCCGTATCCAGAGGGGACCAGGAGAGCATTGTTACAATAGGAAAAATA
6610 6620 6630 6640 6650 6660 6670

M P L * N R * L A N * E N N L E I I K O * S L S N
C H F K T D S * Q I K R T I W K * * N N N L * A
A T L K G I A S K L R E O F C N N K T I I F K O
ATGCCACTTTTAAACAGATAGCTAGCAAAATTAAGACAACAATTTGGAATAATAAAACAATAATCTTTAAGCAAT
6730 6740 6750 6760 6770 6780 6790

I G N F S T V I Q H N C L I V L G L I V L G V L K
R G I F L L * F N T T V * * Y L V * * Y L E Y *
G E F F Y C N S T D L F N S T W F N S T W S T E
GAGGGGAATTTTCTACTGTAATTCACACAACCTGTTTAATAGTACTTGGTTTAATAGTACTTGGAGTACTGAAC
6850 6860 6870 6880 6890 6900 6910

E * N N L * T C G R K * E K O C M P L P S A D K L
N K T I Y K H V A G S R K S N V C P S H Q R T N
I K O F I N M H O E V G K A M Y A P P I S G O I
GAATAAAACAATTTATAAACATGTGGCAGGAAGTAGGAAAAGCAATGTATGCCCTCCCATCAGCGGACAAATT
6970 6980 6990 7000 7010 7020 7030

V I T T M G P R S S D L E E E I * G T I G E V N Y
* * O O W V R D L O T W R R R Y E G O L E K * I I
N N N N G S E I F R P G G G D M R D N W R S E L
GTAATAACAACAATGGGTCGAGATCTTCAGACCTGGAGGAGGAGATATGAGGGACAATTGGAGAAGTGAATTAT
7090 7100 7110 7120 7130 7140 7150

P R Q R E E W C R E K K E Q W E * E L C S L G S W
O G K E K S G A E R K K S S G N R S F V P W V L G
K A K R R V V O R E K R A V G I G A L F L G F L
CCAAGCCAAGAGAAGAGTGGTGCAGAGAGAAAAAGAGCAGTGGGAATAGGAGCTTTGTTCTTGGGTTCTTGG
7210 7220 7230 7240 7250 7260 7270

Y R P D N Y C L V * C S S R T I C * G L L R R N S
T G O T I I V W Y S A A A E Q F A E G Y * G A T A
O A R O L L S G I V O Q Q N N L L R A I E A O O
TACAGGCCAGACAATTATTGCTCTGATAGTGCAGCAGCAGAACAATTTGCTGAGGGCTATTGAGGGCCACAGC
7330 7340 7350 7360 7370 7380 7390

E S A L W K O T * R I N S S W G F G V A L E N S F

Fig. 16

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N R T M Y K C Q H S T M Y T W N * A S S I N S T
T G P C T N V S T V O C T H G I R * V V S T U L
AACAGGACCATGTACAAATGTCAGCACAGTACAATGTACACATGGAATTAGGCCAGTAGTATCAACTCAAC
0 6420 6430 6440 6450 6460 6470 6480

P I S O T M L K P * * Y S * T N L * K L I V U D
O F H R O C * N H N S T A E P I C R N * L Y K T
N F T D N A K T I I V O L N O S V E I N C T R P
CAATTTTCACAGACAATGCTAAAACCATAATAGTACAGCTGAACCAATCTGTAGAATTAATTGTACAAGAC
0 6540 6550 6560 6570 6580 6590 6600

F H L L O * E K * E I * D K H I V T L V F O N G
S I C Y V P K N R K Y E T S T L * H * * S K M E
A F V T I G K I G N * R O A H C P I S R A K W N
AGCATTGTGTACAAATAGGAAAAATAGGAAATATGAGACAAGCACATTGTAAACATTAGTAGAGCAAAATGGA
0 6660 6670 6680 6690 6700 6710 6720

I I K O * S L S N P O E G T O K L * P T V L I V
* * N N V L * A I L R R G P R N C N A O F * L W
N K T I I F K O S S G G O P E I V T H S F N C G
TAATAAAACAATAATCTTTAAGCAATCCTCAGGAGGGGACCCAGAAATTGTAAACGCACAGTTTAAATTGTC
0 6780 6790 6800 6810 6820 6830 6840

L I V L G V L K G O I T L K E V T O S H S H A
V * * Y L E Y * R V K * H * R K * H V H T P M G
F N S T W S T E G S N N T E G S O T I T L P C R
TTTAATAGTACTTGGAGTACTGAAGGGTCAATAAACAAGTGAAGGAAGTGACACAATCACACTCCCATGCA
0 6900 6910 6920 6930 6940 6950 6960

P L P S A D K L D V H O I L G G C Y * Q E M V
C P S H O R T N * M F I K Y Y R A A I N K R W W
A P P I S G O I R C S S N I T G L L L T R D G G
TGCCCTCCCATCAGCGGACAAATTAGATGTTCAATAATTACAGGCTGCTATTAACAAGAGATGGTG
0 7020 7030 7040 7050 7060 7070 7080

G T I G E V N Y I N I K * * K L N H * E * H P
E G O L E K * I I * I * S S K N * T I R S S T H
R D N W R S E L Y K Y K V V K I E P L G V A P T
GAGGACAATTGGAGAAGTGAATTATATAAATAGTAGTAAAAATTGAACCATAGGAGTAGCACCCA
0 7140 7150 7160 7170 7180 7190 7200

E L C S L G S W E O O E A L W A H G O * R * R
R S F V P W V L G S S R K H Y G R T V N O A O G
G A L F L G F L G A A G S T M G A R S M T L T V
AGGAGCTTTGTTCCCTGGGTTCTTGGGAGCAGCAGGAAGCACTATGGGCGCACGGTCAATGACGCTGACGG
0 7260 7270 7280 7290 7300 7310 7320

G * G L L R R N S I C C N S O S G A S S S S R O
A E G Y * G A T A S V A T H S L G H O A A P G K
L R A I E A O O H L L Q L T V W G I K O L O A R
CTGAGGGCTATTGACGGCAACAGCATCTGTTGCAACTCACAGTCTGGGCGCATCAAGCAGCTCCAGGCAA
0 7380 7390 7400 7410 7420 7430 7440

G V A L E N S F A P L L C L G * L V G V I N L 28

Fig 17

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N P G C G K I P K G S T A P G D L G L L K T H
I L A V E R Y L K D O U L L G I W G C S G K L I
GAATCCTGGCTCTGGAAGATACCTAAAGGATCAACAGCTCCTGGGGATTGGGGTTGCTCTGGAAGAACTCAT
7450 7460 7470 7480 7490 7500 7510

W N R F G I T * P G W S G T E K L T I T Q A * Y
G T D L E * H D L D G V G D R N * D L H K L N T
E D I W N N M T W M E M D R E I N N Y T S L I H
TGGAAACAGATTTGGAATAACATGACCTGGATGGAGTGGGACAGAGAAATTAACAATTACACAAGCTTAATACA
7570 7580 7590 7600 7610 7620 7630

N Y W N * I N G O V C S I G L T * D I G C G I * P
I I G I R * M G K F V E L V * H N K L A V V Y K
L L E L D K W A S L W N W F N I T H W L W Y I K
AATTATTGGAATTAGATAAAATGGGCAAGTTTGTGGAATTGGTTTAAACATAACAAATTGGCTGTGGTATATAAAA
7690 7700 7710 7720 7730 7740 7750

L L Y F L * * I E L G R D I H H Y R F R P T S Q P
C C T F Y S E * S * A G I F T I I V S D P P P N
A V L S I V N R V R O G Y S P L S F O T H L P T
TTGCTGTACTTTCTATAGTGAATAGAGTTAGGCAGGGATATTACCATTTATCGTTTCAGACCCACCTCCCAACC
7810 7820 7830 7840 7850 7860 7870

R E T E T D P F D * * T D P * H L S G T I C G A L
E R U P Q I H S I S E R I L S T Y L G R S A E P
R D R D R S I R L V N G S L A L I W D D L R S L
AGAGAGACAGAGACAGATCCATTGATTAGTGAACGGATCCTTAGCACTTATCTGGGACGATCTGCGGAGCCTT
7930 7940 7950 7960 7970 7980 7990

T R I V E L L G & R G H E A L K Y W W N L L O Y W
R G L W N F W D A G G G K P S N I G G I S Y S I
E D C G T S G T G G V G S P O I L V E S P T V L
ACGAGGACTTGTGGAACCTTCTGGGACGCAGGGGTGGGAAGCCCTCAAATATTGGTGGAACTCTCCTACAGTATTC
8050 8060 8070 8080 8090 8100 8110

A I A V A E G T D R V I E V V O G A C R A I R H I
P * J * L R G Q I G L * K * Y K E L V E L F A T
H S S S * G D R * G Y R S S T R S L * S Y S P H
GCCATAGCAGTAGCTGAGCGGACAGATAGGGTTATAGAAGTAGTACAAGGAGCTTGTAGAGCTATTGCCACAT
8170 8180 8190 8200 8210 8220 8230

G W O V V K K * C G W H A Y C K G K N E T S * A S
G G K W S K S S V V G W P T V R E R H R A E P
V A S G O K V V W L D G L L * G K E * D E L S O
GGGTGGCAAGTGGTCAAAAAGTAGTGTGTTGGATGGCCTACTGTAAGGGAAGAATGAGACGAGCTGAGCCAG
8290 8300 8310 8320 8330 8340 8350

S N H K * O Y S S Y O C C L C L A R S T R G G G C
A I T S S N T A A T N A A C A W L F A O E E E E
O S O V A I O O L P M L L V P G * K H K R R R R
AGCAATCACAAGTAGCAATACAGCAGCTACCAATGCTGCTTGTGCCTGGCTAGAGGACAGAGGAGGAGGAGG
8410 8420 8430 8440 8450 8460 8470

U G S C R S * P L F K R K G G T G

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Fig 18

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A K T H L H M C C A L E C * L E * * I S
G K L M I C T T A V P W N A S W S N K L
GTGGAAACTCATTTCACCACTGCTGTGCCTTGGAAATGCTAGTTGGAGTAATAAATCTC
7510 7520 7530 7540 7550 7560

Q A * Y I P * L K N R K T S K K R M N K
K L N T F L N * R I A K P A R K E * T R
S L I H S L I E E S O V O Q E K N E O E
GAAGCTTAATACATTCTTAATTGAAGAATCGCAAAACCAAGAAAGAAATGAACAAG
7630 7640 7650 7660 7670 7680

C G I * K Y S * * * * E A W * V * E * F
V V Y K N I H N D S R R L G R F K N S F
W Y I K I F I M I V G G L V G L / R / I V F
GTGGTATATAAAATATTCATAATGATAGTAGGAGGCTTGGTAGGTTTAAGAATAGTTT
7750 7760 7770 7780 7790 7800

P T S Q P R G D P T G P K E * K K K V E
P P P N P E G T R O A R R N R R R R W R
H L P T P R G P D R P E G I E E E G G E
CCACCTCCCAACCCGAGGGGACCCGACAGGCCCGAAGGAATAGAAGAAGAAGGTGGAG
7870 7880 7890 7900 7910 7920

I C G A L C L F S Y H R L R D L L L I V
S A E P C A S S A T T A * E T Y S * L *
L R S L V P L O L P P L E R L T L D C N
TCTGCGGAGCCTTGTGCTCTTCAGCTACCACCGCTTGAGAGACTTACTCTTGATTGTA
7990 8000 8010 8020 8030 8040

L L O Y W S O E L K N S A V S L L N A T
S Y S I G V R N * R I V L L A C S M P O
P T V L E S G T K E * C C * L A O C H S
TCCTACAGTATTGGAGTCAGGAACATAAGAATAGTGCTGTAGCTTGCTCAATGCCACA
8110 8120 8130 8140 8150 8160

A I R H I P R R I R O G L E R I L L * D
L F A T Y L E E * D R A W K G F C Y K M
Y S P H T * K N K T G L G K D F A I R W
CTATTCCGCCACATACCTAGAAGAATAAGACAGGCTTGGAAAGGATTTTGCTATAAGAT
8230 8240 8250 8260 8270 8280

T S * A S S R W G G S S I S R P G K T W
R A E P A A D G V G A A S R D L E K H G
E L S O Q O * G W E O H L E T W K N M E
AGAGCTGAGCCAGCAGCAGATGGGGTGGGAGCAGCATCTCGAGACCTGGAAAAACATGG
8350 8360 8370 8380 8390 8400

G G G G G F S S H T S G T F K T N D L
E E E E V G F P V T P C V P L R P M T Y
R R R R Y F S H L R Y L * D O * L T
GAGGAGGAGGAGGCGGTTTCCAGTCACCTCAGGTACCTTTAAGACCAATGACTTA
8470 8480 8490 8500 8510 8520

Using track
15/15 B/L

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Fig 19

10	20	30	40	50	60
AAGCTTGCCT	TGAGTGCTTC	AAGTAGTGTG	TCCCCGTCTG	TTGTGTGACT	CTGGTAACTA
70	80	90	100	110	120
GAGATCCCTC	AGACCCTTTT	AGTCAGTGTG	GAAAATCTCT	AGCAGTGGCG	CCCGAACAGG
130	140	150	160	170	180
GACTTGAAAG	CGAAAGGGAA	ACCAGAGGAG	CTCTCTCGAC	GCAGGACTCG	GCTTGCTGAA
190	200	210	220	230	240
GCGCGCACGG	CAAGAGGGGA	GGGGAGGGGA	CTGGTGAGTA	CGCCAAAAAT	TTTGACTAGC
250	260	270	280	290	300
GGAGGCTAGA	AGGAGAGAGA	TGGGTGCCAG	AGCGTCAGTA	TTAAGCGGGG	GAGAATTAGA
310	320	330	340	350	360
TCGATGGGAA	AAAATTCGGT	TAAGGCCAGG	GGGAAAGAAA	AAATATAAAT	TAAAACATAT
370	380	390	400	410	420
AGTATGGGCA	AGCAGGGAGC	TAGAACGATT	CGCTGTTAAT	CCTGGCCTGT	TAGAAACATC
430	440	450	460	470	480
AGAAGGCTGT	AGACAAATAC	TGGGACAGCT	ACAACCATCC	CTTCAGACAG	GATCAGAAGA
490	500	510	520	530	540
ACTTAGATCA	TTATATAATA	CAGTAGCAAC	CCTCTATTGT	GTGCATCAAA	GGATAGAGAT
550	560	570	580	590	600
AAAAGACACC	AAGGAAGCTT	TAGACAAGAT	AGAGGAAGAG	CAAAACAAAA	GTAAGAAAAA
610	620	630	640	650	660
AGCACAGCAA	GCAGCAGCTG	ACACAGGACA	CAGCAGCCAG	GTCAGCCAAA	ATTACCCAT
670	680	690	700	710	720
AGTGCAGAAC	ATCCAGGGGC	AAATGGTACA	TCAGGCCATA	TCACCTAGAA	CTTTAAATGC
730	740	750	760	770	780
ATGGGTAAAA	GTAGTAGAAG	AGAAGGCTTT	CAGCCCAGAA	GTGATACCCA	TGTTTTCAGC
790	800	810	820	830	840
ATTATCAGAA	GGAGCCACCC	CACAAGATTT	AAACACCATG	CTAAACACAG	TGGGGGGACA
850	860	870	880	890	900
TCAAGCAGCC	ATGCAAATGT	TAAAAGAGAC	CATCAATGAG	GAAGCTGCAG	AATGGGATAG
910	920	930	940	950	960
AGTGCATCCA	GTGCATGCAG	GGCCTATTGC	ACCAGGCCAG	ATGAGAGAAC	CAAGGGGAAG
970	980	990	1000	1010	1020
TGACATAGCA	GGAACACTA	GTACCCTTCA	GGAACAAATA	GGATGGATGA	CAAATAATCC
1030	1040	1050	1060	1070	1080
ACCTATCCCA	GTAGGAGAAA	TTTATAAAAG	ATGGATAATC	CTGGGATTAA	ATAAAATAGT
1090	1100	1110	1120	1130	1140

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Fig 20

AAATAATGTAT AGCCCTACCA GCATTCTGGA CATAAGACAA GGACCAAAAAG AACCCTTTAG
 1150 1160 1170 1180 1190 1200
 AGACTATGTA GACCGGTTCT ATAAAACTCT AAGAGCCGAG CAAGCTTCAC AGGAGGTAAA
 1210 1220 1230 1240 1250 1260
 AAATTGGATG ACAGAAACCT TGTGGGTCCA AAATGCCAAC CCAGATTGTA AGACTATTTT
 1270 1280 1290 1300 1310 1320
 AAAAGCATTG GGACCAGCAG CTACACTAGA AGAAATGATG ACAGCATGTC AGGGAGTGGG
 1330 1340 1350 1360 1370 1380
 AGGACCCGGC CATAAGGCCA GAGTTTTGGC TGAAGCAATG AGCCAAGTAA CAAATTCAGC
 1390 1400 1410 1420 1430 1440
 TACCATAATG ATGCAAAGAG GCAATTTTAG GAACCAAAGA AAGATTGTTA AGTGTTCCTA
 1450 1460 1470 1480 1490 1500
 TTGTGGCAAA GAAGGGCACA TAGCCAGAAA TTGCAGGGCC CCTAGGAAAA AGGGCTGTG
 1510 1520 1530 1540 1550 1560
 GAAATGTGGA AAGGAAGGAC ACCAAATGAA AGATTGTACT GAGAGACAGG CTAATTTTTT
 1570 1580 1590 1600 1610 1620
 AGGGAAGATC TGGCCTTCCT ACAAGGGAAG GCCAGGGAAT TTTCTTCAGA GCAGACCAGA
 1630 1640 1650 1660 1670 1680
 GCCAACAGCC CCACCAGAAG AGACCTTCAG GTCTGGGGTA GAGACAACAA CTCCCTCTCA
 1690 1700 1710 1720 1730 1740
 GAAGCAGGAG CCGATAGACA AGGAAGTGTG TCCTTTAACT TCCCTCAGAT CACTCTTTGG
 1750 1760 1770 1780 1790 1800
 CAACGACCCC TCGTCACAAT AAAGATAGGG GGGCAACTAA AGGAAGCTCT ATTAGATACA
 1810 1820 1830 1840 1850 1860
 GGAGCAGATG ATACAGTATT AGAAGAAATG AGTTTGCCAG GAAGATGGAA ACCAAAAATC
 1870 1880 1890 1900 1910 1920
 ATAGGGGGAA TTGGAGGTTT TATCAAAGTA AGACAGTATG ATCAGATACT CATAGAAATC
 1930 1940 1950 1960 1970 1980
 TGTGGACATA AAGCTATAGG TACAGTATTA GTAGGACCTA CACCTGTCAA CATAATTGGA
 1990 2000 2010 2020 2030 2040
 AGAAATCTGT TGAATCAGAT TGGTTGCACT TTAAATTTTC CCATTAGTCC TATTGAAACT
 2050 2060 2070 2080 2090 2100
 GTACCAGTAA AATTAAGGCC AGGAATGGAT GGCCCAAAAG TTAACAATG GCCATTGACA
 2110 2120 2130 2140 2150 2160
 GAAGAAAAAA TAAAAGCATT AGTAGAAATT TGTACAGAAA TGGAAAAGGA AGGGAAAATT
 2170 2180 2190 2200 2210 2220
 TCAAAAATTG GGCCTGAAAA TCCATACAAT ACTCCAGTAT TTGCCATAAA GAAAAAAGAC
 2230 2240 2250 2260 2270 2280
 AGTACTAAAT GGAGAAAATT AGTAGATTTT AGAGAACTTA ATAAGAGAAC TCAAGACTTC
 2290 2300 2310 2320 2330 2340
 TGGGAAGTTC AATTAGGAAT ACCACATCCC GCAGGGTTAA AAAAGAAAAA ATCAGTAACA
 2350 2360 2370 2380 2390 2400

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Fig 21

GTCCTGGATG TGGGTGATGC ATATTTTTC A GTTCCCCTAG ATGAAGACTT CAGGAAGTAT
2410 2420 2430 2440 2450 2460
ACTGCATTTA CCATACCTAG TATAACAAT GAGACACCAG GCATTAGATA TCAGTACAAT
2470 2480 2490 2500 2510 2520
GTGCTTCCAC AGGGATGGAA AGGATCACCA GCAATATTCC AAAGTAGCAT GACAAAAATC
2530 2540 2550 2560 2570 2580
TTAGAGCCTT TTAGAAAACA AAATCCAGAC ATAGTTATCT ATCAATACAT GGATGATTTG
2590 2600 2610 2620 2630 2640
TATGTAGGAT CTGACTTAGA AATAGGGCAG CATAGAACAA AAATAGAGGA GCTGAGACAA
2650 2660 2670 2680 2690 2700
CATCTGTTGA GGTGGGGACT TACCACACCA GACAAAAAAC ATCAGAAAGA ACCTCCATTC
2710 2720 2730 2740 2750 2760
CTTTGGATGG GTTATGAACT CCATCCTGAT AAATGGACAG TACAGCCTAT AGTGCTGCCA
2770 2780 2790 2800 2810 2820
GAAAAAGACA GCTGGACTGT CAATGACATA CAGAAGTTAG TGGGAAAATT GAATTGGGCA
2830 2840 2850 2860 2870 2880
AGTCAGATTT ACCCAGGGAT TAAAGTAAGG CAATTATGTA AACTCCTTAG AGGAACCAAA
2890 2900 2910 2920 2930 2940
GCACTAACAG AAGTAATACC ACTAACAGAA GAAGCAGACC TAGAACTGGC AGAAAAACAGA
2950 2960 2970 2980 2990 3000
GAGATTCTAA AAGAACCAGT ACATGGAGTG TATTATGACC CATCAAAAGA CTTAATAGCA
3010 3020 3030 3040 3050 3060
GAAATACAGA AGCAGGGGCA AGGCCAATGG ACATATCAAA TTTATCAAGA GCCATTTAAA
3070 3080 3090 3100 3110 3120
AATCTGAAAA CAGGAAAATA TGCAAGAACG AGGGGTGCCC AACTAATGA TGTAAAAACA
3130 3140 3150 3160 3170 3180
TTAACAGAGG CAGTGCAAAA AATAACCACA GAAAGCATAG TAATATGGGG AAAGACTCCT
3190 3200 3210 3220 3230 3240
AAATTTAAAC TACCCATACA AAAGGAAACA TGGGAAACAT GGTGGACAGA GTATTGGCAA
3250 3260 3270 3280 3290 3300
GCCACCTGGA TTCCTGAGTG GGAGTTTGTC AATACCCCTC CTTTAGTGAA ATTATGCTAC
3310 3320 3330 3340 3350 3360
CAGTTAGAGA AAGAACCCAT AGTAGGAGCA GAAACGTTCT ATGTAGATGG GGCAGCTAGC
3370 3380 3390 3400 3410 3420
AGGGAGACTA AATTAGGAAA AGCAGGATAT GTTACTAATA GAGGAAGACA AAAAGTTGTC
3430 3440 3450 3460 3470 3480
ACCCTAACCTG ACACAACAAA TCAGAAGACT GAGTTACAAG CAATTCATCT AGCTTTGCAG
3490 3500 3510 3520 3530 3540
GATTCGGGAT TAGAAGTAAA TATAGTAACA GACTCACAAT ATGCATTAGG AATCATTCAA
3550 3560 3570 3580 3590 3600
GCACAACCAG ATAAAAGTGA ATCAGAGTTA GTCAATCAAA TAATAGAGCA GTTAATAAAA
3610 3620 3630 3640 3650 3660

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Fig 92

AAGAAAAAG TCTATCTGGC ATGGGTACCA GCACACAAAG GAATTGGAGG AAATGAACAA
 3670 3680 3690 3700 3710 3720
 GTAGATAAAT TAGTCAGTGC TGGGAATCAGG AAAGTACTAT TTTTAGATGG AATAGATAAG
 3730 3740 3750 3760 3770 3780
 GCGCAAGATG AACATGAGAA ATATCACAGT AATTGGAGAG CAATGGCTAG TGATTTTAAC
 3790 3800 3810 3820 3830 3840
 CTGCCACCTG TAGTAGCAAA AGAAATAGTA GCCAGCTGTG ATAAATGTCA GCTAAAAGGA
 3850 3860 3870 3880 3890 3900
 GAAGCCATGC ATGGACAAGT AGACTGTAGT CCAGGAATAT GGCAACTAGA TTGTACACAT
 3910 3920 3930 3940 3950 3960
 TTAGAAGGAA AAGTTATCCT GGTAGCAGTT CATGTAGCCA GTGGATATAT AGAAGCAGAA
 3970 3980 3990 4000 4010 4020
 GTTATTCCAG CAGAAACAGG GCAGGAAACA GCATACCTTC TTTTAAATTT AGCAGGAAGA
 4030 4040 4050 4060 4070 4080
 TGGCCAGTAA AAACAATACA TACAGACAAT GGCAGCAATT TCACCAGTAC TACGGTTAAG
 4090 4100 4110 4120 4130 4140
 GCCGCCTGTT GGTGGGCGGG AATCAAGCAG GAATTTGGAA TTCCCTACAA TCCCCAAAGT
 4150 4160 4170 4180 4190 4200
 CAAGGAGTAG TAGAATCTAT GAATAAAGAA TTAAAGAAAA TTATAGGCCA CGTAAGAGAT
 4210 4220 4230 4240 4250 4260
 CAGGCTGAAC ATCTTAAGAC AGCAGTACAA ATGGCAGTAT TCATCCACAA TTTTAAAGA
 4270 4280 4290 4300 4310 4320
 AAAGGGGGGA TTGGGGGGTA CAGTGCGGGG GAAAGAATAG TAGACATAAT AGCAACAGAC
 4330 4340 4350 4360 4370 4380
 ATACAAACTA AAGAATTACA AAAACAAATT ACAAAAATTC AAAATTTTCG GGTTTATTAC
 4390 4400 4410 4420 4430 4440
 AGGGACAGCA GAGATCCACT TTGGAAGGA CCAGCAAAGC TCCTCTGGAA AGGTGAAGGG
 4450 4460 4470 4480 4490 4500
 GCAGTAGTAA TACAAGATAA TAGTGACATA AAAGTAGTGC CAAGAAGAAA AGCAAAGATC
 4510 4520 4530 4540 4550 4560
 ATTAGGGATT ATGGAAGACA GATGGCAGGT GATGATTGTG TGGCAAGTAG ACAGGATGAG
 4570 4580 4590 4600 4610 4620
 GATTAGAACA TGGAAAAGTT TAGTAAACA CCATATGTAT GTTTCAGGGA AAGCTAGGGG
 4630 4640 4650 4660 4670 4680
 ATGGTTTTAT AGACATCACT ATGAAAGCCC TCATCCAAGA ATAAGTTCAG AAGTACACAT
 4690 4700 4710 4720 4730 4740
 CCCACTAGGG GATGCTAGAT TGGTAATAAC AACATATTGG GGTCTGCATA CAGGAGAAAG
 4750 4760 4770 4780 4790 4800
 AGACTGGCAT CTGGGTCAGG GAGTCTCCAT AGAATGCAGG AAAAAGAGAT ATAGCACACA
 4810 4820 4830 4840 4850 4860
 AGTAGACCTT GAACTAGCAG ACCAACTAAT TCATCTGTAT TACTTTGACT GTTTTTCAGA
 4870 4880 4890 4900 4910 4920

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CTCTCTATA AGAAAGGCCT TATTAGGACA TATAGTTAGC CCTAGGTGTG AATATCAAGC

4930 4940 4950 4960 4970 4980
AGGACATAAC AAGGTAGGAT CTCTACAATA CTTGGCACTA GCAGCATTAA TAACACCAAA

4990 5000 5010 5020 5030 5040
AAAGATAAAG CCACCTTTGC CTAGTGTTAC GAAACTGACA GAGGATAGAT GGAACAAGCC

5050 5060 5070 5080 5090 5100
CCAGAAGACC AAGGGCCACA GAGGGAGCCA CACAATGAAT GGACACTAGA GCTTTTAGAG

5110 5120 5130 5140 5150 5160
GAGCTTAAGA ATGAAGCTGT TAGACATTTT CCTAGGATTT GGCTCCATGG CTTAGGGCAA

5170 5180 5190 5200 5210 5220
CATATCTATG AAACCTTATGG GGATACTTGG GCAGGACTGG AAGCCATAAT AAGAATTCTG

5230 5240 5250 5260 5270 5280
CAACAACCTGC TGTTTATCCA TTTCAGAATT GGGTGTGAC ATAGCAGAAT AGGCGTTACT

5290 5300 5310 5320 5330 5340
CAACAGAGGA GAGCAAGAAA TGGAGCCAGT AGATCCTAGA CTAGAGCCCT GGAAGCATCC

5350 5360 5370 5380 5390 5400
AGGAAGTCAG CCTAAACTG CTTGTACCAC TTGCTATTGT AAAAAGTGT GCTTTCATTG

5410 5420 5430 5440 5450 5460
CCAAGTTTGT TTCACAACAA AAGCCTTAGG CATCTCCTAT GGCAGGAAGA AGCGGAGACA

5470 5480 5490 5500 5510 5520
GCGACGAAGA CCTCCTCAAG GCAGTCAGAC TCATCAAGTT TCTCTATCA AGCAGTAAGT

5530 5540 5550 5560 5570 5580
AGTACATGTA ATGCAACCTA TACAAATAGC AATAGCAGCA TTAGTAGTAG CAATAATAAT

5590 5600 5610 5620 5630 5640
AGCAATAGTT GTGTGGTCCA TAGTAATCAT AGAATATAGG AAAATATTAA GACAAAGAAA

5650 5660 5670 5680 5690 5700
AATAGACAGG TTAATTGATA GACTAATAGA AAGAGCAGAA GACAGTGGCA ATGAGAGTGA

5710 5720 5730 5740 5750 5760
AGGAGAAATA TCAGCACTTG TGGAGATGGG GGTGGAAATG GGGCACCATG CTCCTTGGGA

5770 5780 5790 5800 5810 5820
TATTGATGAT CTGTAGTGCT ACAGAAAAAT TGTGGGTCAC AGTCTATTAT GGGGTACCTG

5830 5840 5850 5860 5870 5880
TGTGGAAGGA AGCAACCACC ACTCTATTTT GTGCATCAGA TGCTAAAGCA TATGATACAG

5890 5900 5910 5920 5930 5940
AGGTACATAA TGTTTGGGCC ACACATGCCT GTGTACCCAC AGACCCCAAC CCACAAGAAG

5950 5960 5970 5980 5990 6000
TAGTATTGGT AAATGTGACA GAAAAATTTA ACATGTGGAA AAATGACATG GTAGAACAGA

6010 6020 6030 6040 6050 6060
TGCATGAGGA TATAATCAGT TTATGGGATC AAAGCCTAAA GCCATGTGTA AAATTAACCC

6070 6080 6090 6100 6110 6120
CACTCTGTGT TAGTTTAAAG TGCAGTGATT TGGGGAATGC TACTAATACC AATAGTAGTA

6130 6140 6150 6160 6170 6180

Fig 23

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ATACCAATAG TAGTAGCGGG GAAATGATGA TGGAGAAAGG AGAGATAAAA AACTGCTCTT
6170 6200 6210 6220 6230 6240
TCAATATCAG CACAAGCATA AGAGGTAAGG TGCAGAAAGA ATATGCATT TTTTATAAAC
6250 6260 6270 6280 6290 6300
TTGATATAAT ACCAATAGAT AATGATACTA CCAGCTATAC GTTGACAAGT TGTAACACCT
6310 6320 6330 6340 6350 6360
CAGTCATTAC ACAGGCCCTGT CCAAAGGTAT CCTTTGAGCC AATTCCCATTA CATTATTGTG
6370 6380 6390 6400 6410 6420
CCCCGGCTGG TTTTGGCATT CTAAAATGTA ATAATAAGAC GTTCAATGGA ACAGGACCAT
6430 6440 6450 6460 6470 6480
GTACAAATGT CAGCACAGTA CAATGTACAC ATGGAATTAG GCCAGTAGTA TCAACTCAAC
6490 6500 6510 6520 6530 6540
TGCTGTTGAA TGGCAGTCTA GCAGAAGAAG AGGTAGTAAT TAGATCTGCC AATTTCACAG
6550 6560 6570 6580 6590 6600
ACAATGCTAA AACCATAATA GTACAGCTGA ACCAATCTGT AGAAATTAAT TGTACAAGAC
6610 6620 6630 6640 6650 6660
CCAACAACAA TACAAGAAAA AGTATCCGTA TCCAGAGGGG ACCAGGGAGA GCATTGTGTA
6670 6680 6690 6700 6710 6720
CAATAGGAAA AATAGGAAAT ATGAGACAAG CACATTGTAA CATTAGTAGA GCAAAATGCA
6730 6740 6750 6760 6770 6780
ATGCCACTTT AAAACAGATA GCTAGCAAAT TAAGAGAACA ATTTGGAAAT AATAAAACAA
6790 6800 6810 6820 6830 6840
TAATCTTTAA GCAATCTCA GGAGGGGACC CAGAAATTGT AACGCACAGT TTTAATTGTG
6850 6860 6870 6880 6890 6900
GAGGGGAATT TTTCTACTGT AATTCAACAC AACTGTTTAA TAGTACTTGG TTTAATAGTA
6910 6920 6930 6940 6950 6960
CTTGGAGTAC TGAAGGGTCA AATAACACTG AAGGAAGTGA CACAATCACA CTCCCATGCA
6970 6980 6990 7000 7010 7020
GAATAAAACA ATTTATAAAC ATGTGGCAGG AAGTAGGAAA AGCAATGTAT GCCCCTCCCA
7030 7040 7050 7060 7070 7080
TCAGCGGACA AATTAGATGT TCATCAAATA TTACAGGGCT GCTATTAACA AGAGATGGTG
7090 7100 7110 7120 7130 7140
GTAATAACAA CAATGGGTCC GAGATCTTCA GACCTGGAGG AGGAGATATC AGGGACAATT
7150 7160 7170 7180 7190 7200
GGAGAAGTGA ATTATATAAA TATAAAGTAG TAAAAATTGA ACCATTAGGA GTAGCACCCA
7210 7220 7230 7240 7250 7260
CCAAGGCAAA GAGAAGAGTG GTGCAGAGAG AAAAAAGAGC ACTGGGAATA GGAGCTTTGT
7270 7280 7290 7300 7310 7320
TCCTTGGGTT CTTGGGAGCA GCAGGAAGCA CTATGGGCCG ACGGTCAATC ACGCTGACGG
7330 7340 7350 7360 7370 7380
TACAGGCCAG ACAATTATTG TCTGGTATAG TGCAGCAGCA GAACAATTTG CTGAGGGCTA
7390 7400 7410 7420 7430 7440

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TTGAGGCGCA ACAGCATCTG TTGCAACTCA CAGTCTGGGG CATCAAGCAG CTCCAGGCAA
7450 7460 7470 7480 7490 7500
GAATCCTGGC TGTGGAAAGA TACCTAAAAG ATCAACAGCT CCTGGGGATT TGGGGTTGCT
7510 7520 7530 7540 7550 7560
CTGGAAACT CATTTCACC ACTGCTGTGC CTTGGAATGC TAGTTGGAGT AATAAATCTC
7570 7580 7590 7600 7610 7620
TGGAACAGAT TTGGAATAAC ATGACCTGGA TGGAGTGGGA CAGAGAAATT AACAATTACA
7630 7640 7650 7660 7670 7680
CAAGCTTAAT ACATTCTTA ATTGAAGAA CGCAAAACCA GCAAGAAAAG AATGAACAAG
7690 7700 7710 7720 7730 7740
AATTATTGGA ATTAGATAAA TGGGCAAGTT TGTGGAATTG GTTTAACATA ACAAATTGGC
7750 7760 7770 7780 7790 7800
TGTGGTATAT AAAAATATTC ATAATCATAG TAGGAGGCTT GCTAGGTTTA AGAATAGTTT
7810 7820 7830 7840 7850 7860
TTCTGTACT TTCTATAGTG AATAGAGTTA GGCAGGGATA TTCACCATA TCGTTTCAGA
7870 7880 7890 7900 7910 7920
CCCACCTCCC AACCCCGAGG GGACCCGACA GGCCCGAAGG AATAGAAGAA GAAGGTGGAG
7930 7940 7950 7960 7970 7980
AGAGAGACAG AGACAGATCC ATTCGATTAG TGAACGGATC CTTAGCACTT ATCTGGGACG
7990 8000 8010 8020 8030 8040
ATCTGCGGAG CCTTGTGCCT CTTGAGCTAC CACCGCTTGA GAGACTTACT CTTGATTGTA
8050 8060 8070 8080 8090 8100
ACGAGGATTG TGGAACTTCT GGGACGCAGG GGGTGGGAAG CCTCAAATA TTGGTGGAAAT
8110 8120 8130 8140 8150 8160
CTCCTACAGT ATTGGAGTCA GGAACATAAG AATAGTGCTG TTAGCTTGCT CAATGCCACA
8170 8180 8190 8200 8210 8220
GCCATAGCAG TAGCTGAGGG GACAGATAGG GTTATAGAAG TAGTACAAGG AGCTTGTAGA
8230 8240 8250 8260 8270 8280
GCTATTCGCC ACATACCTAG AAGAATAAGA CAGGGCTTGG AAAGGATTTT GCTATAAGAT
8290 8300 8310 8320 8330 8340
GGGTGGCAAG TGGTCAAAAA GTAGTGTGGT TGGATGGCCT ACTGTAAGGG AAAGAATGAG
8350 8360 8370 8380 8390 8400
ACGAGCTGAG CCAGCAGCAG ATGGGGTGGG AGCAGCATCT CGAGACCTGG AAAACATGG
8410 8420 8430 8440 8450 8460
ACCAATCACA AGTAGCAATA CAGCAGCTAC CAATGCTGCT TGTGCCTGGC TAGAAGCACA
8470 8480 8490 8500 8510 8520
AGAGGAGGAG GAGGTGGGTT TTCCAGTCAC ACCTCAGGTA CCTTTAAGAC CAATGACTTA
8530 8540 8550 8560 8570 8580
CAAGGCAGCT GTAGATCTTA GCCACTTTTT AAAAGAAAAG GGGGGACTGG AAGGGCTAAT
8590 8600 8610 8620 8630 8640
TCACTCCCAA CGAAGACAAG ATATCCTTGA TCTGTGGATC TACCACACAC AAGGCTACTT
8650 8660 8670 8680 8690 8700

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CCCTGATTGG CAGAACTACA CACCAGGGCC AGGGGTCAGA TATCCACTGA CCTTTGGATG

8710 8720 8730 8740 8750 8760
GTGCTACAAG CTAGTACCAG TTGAGCCAGA TAAGGTAGAA GAGGCCAATA AAGGAGAGAA

8770 8780 8790 8800 8810 8820
CACCAGCTTG TTACACCCTG TGAGCCTGCA TGGAAATGGAT GACCCTGAGA GAGAAGTGT

8830 8840 8850 8860 8870 8880
AGAGTGGAGG TTTGACAGCC GCCTAGCATT TCATCACGTG GCGCGAGAGC TGCATCCGGA

8890 8900 8910 8920 8930 8940
GTACTTCAAG AACTGCTGAC ATCGAGCTTG CTACAAGGGA CTTTCCGCTG GGGACTTTCC

8950 8960 8970 8980 8990 9000
AGGGAGGCCGT GGCCTGGCGG GAACTGGGGA GTGGCGAGCC CTCAGATGCT GCATATAAGC

9010 9020 9030 9040 9050 9060
AGCTGCTTTT TGCCTGTACT GGGTCTCTCT GGTTAGACCA GATTTGAGCC TGGGAGCTCT

9070 9080 9090 9100 0 0
CTGGCTAACT AGGGAACCCA CTGCTTAAGC CTCAATAAAG CTT

Fig 26

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